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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/673,143

09/30/2003

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EXAMINER

PSITOS, ARISTOTELIS M

ART UNIT

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2627

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/673,143	<b>Applicant(s)</b> LEE ET AL.	
	<b>Examiner</b> Aristotelis M. Psitos	<b>Art Unit</b> 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 9-14 and 22-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 15-21 and 27-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/30/03 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

Applicants' response of 12/7/07 and 11/20/07 has been considered with the following results.

Due to applicants' amendments to the claims, various previously presented rejections are not maintained. Applicants' request to make this OA non-final has been considered, but not possible due to applicants' amendments.

#### **Errata**

Claims 6,19,31,39, and 42 detail the amplitude value to about 16nm.

Claims 7,20,32,40 and 43 detail the amplitude value to less than 18 nm.

Claims 7,21,33,41 and 44 detail the amplitude value to greater than 14nm.

#### ***Claim Objections***

Claims 5,16,28,31-33,39-44 are objected to because of the following informalities: These dependent claims refer to a "reference value", which has been amended by applicants to read ---- pre-set wobble amplitude reference value ----. Appropriate correction is required.

The examiner interprets such numerical values as referring back to such amended language in the rejections below.

In addition, since claims 6,7 and 8 merely recite the numerical values as identified above in the Errata section of this OA, the examiner also interprets these claims as drawn to the same limitation, i.e., -- - pre-set wobble amplitude reference value ---.

#### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1-5, 15, 16,18,27,28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogiwara (either US 6868051 or EP 1191529) either further considered with EP 1041553.

The following analysis is made:

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## Claim 1

Ogihara

A recording medium type discriminating apparatus,  
comprising:

abstract/title

a radio frequency (RF) amplifier to output  
a signal based on light reflected from a  
recording medium;

see figs. 1 &amp; 2

description thereof

element 109

a wobble amplitude detector to detect an  
amplitude of a wobble formed on the recording  
medium based on an output signal of the RF amplifier; and

above figures/element 118

a system controller to discriminate a recording medium type  
of the recording medium by  
comparing the wobble amplitude with a pre-set wobble  
amplitude reference value.

controller 105

see secondary reference

As analyzed above the above system discriminates medium type by having the appropriate RF  
output signal detected, a wobble signal detector ability and appropriate comparison.

As further disclosed, the comparison of the reference values are made with respect to each other  
and appropriate determination made in response thereto.

In the prior art of EP 1041553 (see the US equivalent patent 6816443) operates by appropriately  
detecting the rf signal, and amplitude thereof. Furthermore, the output signals are processed and  
compared to various pre-stored levels – see the discussion wrt figures 3A-C in either the Ep or US  
document.

It would have been obvious to modify the base system of Ogihara with the teaching from the  
secondary reference (Hwang) motivation is to properly obtain a disc discrimination predicated upon  
alternate equivalent signal processing methods using comparison of selected signals with pre-stored

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values. The examiner concludes that whether one compares the signal of interest with each other to make a determination, or alternatively to compare with pre-stored values indicative of the set of media is merely an obvious selection between alternatives with no unexpected results occurring.

The method limitations of claim 15 are met when the above system operates.

With respect to claim 34, the record medium provided is interpreted to have computer readable code thereon.

With respect to claim 2, as disclosed such is present – push-pull wobble detector.

With respect to claims 3,4,5,16,18 and 28 and 30 such are inherently present, i.e., – see discussion starting at col. 3 line 13 as well as the description of figure 3 of the base reference.

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

As far as they pertain with respect to the secondary reference(s) to Hwang, whether one compares an incoming signal, or an average of the incoming signal with pre-stored thresholds is merely a signal processing capability predicated upon how precise/accurate one wants the incoming signal.

It is known in the signal processing arts, that “averaging” incoming signals (i.e., filtering such) to remove extraneous noise, etc. yields a much better s/n capability. However, elimination of such a capability (averaging/filtering) is not of patentable weight, but one predicated upon secondary considerations such as costs/footprint/etc.

2. Claims 6-8,17, 19-21, 29,31-33,39-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to the claims as stated in paragraph 2 above, and further in view of Morita.

With respect to the amplitude value regarding dvd-rw, such is further disclosed in Morita – see for instance col. 14, lines 34 plus.

With respect to dvd+rw, such is of course an agreed upon range (once noting the amplitude range for the dvd-rw discussed in Morita.

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Since the claims (as grouped above in the Errata section of this OA), refer to various nm values, such values are within the range stated in the Morita reference – again note col. co. 14, lines 34 plus. Selection of any specific value within this range is considered merely an optimization of system parameters and obvious to one of ordinary skill in the art.

It would have been obvious to modify the base system of Ogihara with the above teaching from Morita in order to set an appropriate threshold value, or range of values that are indicative of the breaking point between the dvd-rw and dvd+rw amplitude. Selection of such is an optimization of the system and obvious predicated upon the well-known dvd-rw amplitude range.

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

3. Claims 1,2,15 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe further considered with JP 2002-285582.

The examiner is not providing a copy of the above noted JP document, since the US equivalent to such – Hwang – US 6816443 has been previously provided.

Watanabe describes an amplitude detection capability for the wobble signal - see for instance, the disclosure starting at col. 23 line 47, wherein such detection can distinguish between various DVD discs. There is no clear depiction of what the ref. value can be.

As noted in the above secondary reference, comparisons with pre-stored RF signals (since they are different for various types of discs) are known.

It would have been obvious to modify the base system of Watanabe with the above additional teachings from JP 2002-285582, since the use of alternative equivalent comparison protocols is considered an obvious choice to one of ordinary skill in the arts.

Method claim 15 is met when the above combined systems operate, and the product is considered met, i.e., there is a record medium in the above combined systems which the examiner interprets as meeting the storage medium limitation of claim 27.

***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

4. Claims 5, 16 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1, 2, 15 and 27 above, and further in view of Ogihara.

With respect to the ability of detecting differences between dvd(+), or (-) types of discs, Ogihara further teaches in this environment the ability of detecting appropriate wobble signal values for both types of discs, -see for instance the disclosure starting at col. 3 line 36 and continuing till col. 5 line 65.

It would have been obvious to modify the base system as stated above in paragraph 3 and further modify such with the additional teaching from Ogihara, motivation is to expand the signal recognition capability of the base-references.

***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

5. Claims 3, 4, 17, 18, 29, 30, and 31-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1, 2, 15 and 27 as stated in paragraph 3 above, and further in view of Ohta.

With respect to claims 3, 4, 17, 18, 29 and 30 all drawn to a peak-to-peak value of the wobble signal amplitude, Ohta teaches in this environment the ability of detecting the amplitude of the push-pull signal – see the disclosure with respect to figure 4, and with respect dependent claims 31-44, applicants' attention is drawn to col. to the disclosure starting at col. 4 line 35 plus.

It would have been obvious to modify the base systems as relied upon above in paragraph 3 with the above additional teachings from Ohta, wherein the examiner interprets the push-pull signal value as described with respect to figure 4 as meeting the claimed peak-to-peak amplitude. Furthermore,

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the selection of the particularly claimed values is considered merely an optimization of signal parameters and obvious to one of ordinary skill in the art.

***. Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

6. Claims 6, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohta further considered with Watanabe

Ohta discloses a system for detecting the amplitude of the rf/wobble amplitude signal – see the discussion with respect to figure 1 starting at col 3 line 55 and continuing till col. 4 line 55. Although the system is geared for agc control it does meet the rf and wobble amplitude limitations of these claims.

Watanabe et al teach in this environment, the ability of detecting the amplitudes of detected wobble signals with each other in order to establish an disc discrimination ability – see for instance the disclosure with respect to figure 16, starting at col. 23 line 1 and continuing till line 27.

It would have been obvious to modify the base system of Ohta with the above additional control/distinguishing ability of Watanabe et al motivation is to use an evaluation of the detected wobble amplitudes in order to distinguish the disc itself.

***. Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

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. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date



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of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M. Psitos whose telephone number is (571) 272-7594. The examiner can normally be reached on M-Thru: 6:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Primary Examiner  
Art Unit 2627

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